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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,068	02/06/2002	Thomas P. Glenn	W2K1016	4056

23504 7590 10/02/2002

WEISS & MOY PC
4204 NORTH BROWN AVENUE
SCOTTSDALE, AZ 85251

EXAMINER

CRUZ, LOURDES C

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,068

Applicant(s)

GLENN ET AL.

Examiner

Lourdes C. Cruz

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

All figures showing cross sectional views of the invention are improperly crosshatched. All of the cross hatching patterns should be selected from those shown on page 600-81 of the MPEP based on the material of the part. Also see 35 CFR 184 (h)(3) and MPEP 608.02.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 15,16,22. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13, 21-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite " a tape having a conductive pattern disposed on a surface thereof". On a surface of which structure is the tape disposed?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,5,7-14,21,22,24,25, and 26 rejected under 35 U.S.C. 102(e) as being anticipated by Hughes (US 6403881).

Hughes discloses an optical integrated circuit comprising a tape 2 having a conductive pattern 7 disposed on a surface thereof; a die mounted to the tape and electrically couples to the conductive pattern for providing an electronic function of the IC; a support structure 3 surrounding the die and bonded to the tape; a transparent cover 12 mounted over the die such that an optically active surface of the die is accessible through the transparent cover; and a plurality of external contacts 11 electrically coupled to the conductive pattern for providing an electrical interface to the die.

Hughes also discloses:

- The support structure is a thin metal sheet having an aperture for accepting the die (Col. 3, 32+)

- The transparent cover bonded to the die by optically transparent adhesive, and an encapsulate between the support structure and the cover die (Col. 5, 30+)
- A surface of the cover opposite the die is substantially conformal to a top surface of the support layer opposite the top
- The transparent cover is bonded to the support structure
- The cover is a glass cover
- The plurality of contacts 11 are solder balls forming a BGA, and the tape is perforated to accept a portion of the balls (see vias)
- The solder balls contact the conductive pattern through the perforations
- Wires 8 for coupling the conductive pattern to the die

Claims 1-4, 13,14,21,25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Wetzel et al. (US 6011294).

Wetzel et al. discloses an optical integrated circuit comprising a tape 12 having a conductive pattern 19 disposed on a surface thereof; a die mounted to the tape and electrically couples to the conductive pattern for providing an electronic function of the IC; a support structure 14 surrounding the die and bonded to the tape; a transparent cover 16 mounted over the die such that an optically active surface of the die is accessible through the transparent cover; and a plurality of external contacts (see

external portions of 19) electrically coupled to the conductive pattern for providing an electrical interface to the die.

Wetzel et al. also discloses:

- The tape being a flexible plastic tape/ a polyimide (Col. 3)
- Conductive pattern 19 is copper (Col. 3,50+)
- Wires 29 connecting the die to the conductive pattern
- A glass cover 16

Claims 1,6,13,10,9,14,21,23,25,26 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer et al. (US 6130448).

Bauer et al. discloses an optical integrated circuit comprising a tape 28 having a conductive pattern 30 disposed on a surface thereof; a die mounted to the tape and electrically couples to the conductive pattern for providing an electronic function of the IC; a support structure 46 surrounding the die and bonded to the tape; a transparent cover 48 mounted over the die such that an optically active surface of the die is accessible through the transparent cover; and a plurality of external contacts 44 electrically coupled to the conductive pattern for providing an electrical interface to the die.

Bauer et al. also discloses:

- The support structure is a thin epoxy film (Col. 5, 50+)
- Wires 32 for connecting the die to the conductive pattern
- A glass cover

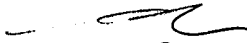
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lourdes C. Cruz whose telephone number is 703-306-5691. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Lourdes C. Cruz
Examiner
Art Unit 2827



Lourdes Cruz
September 26, 2002



JEROME JACKSON
PRIMARY EXAMINER